Reach and Impact of an EHR Pain Care Clinical Decision Support Program

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Introduction

Pain care is one of the top reasons for ambulatory office visits in the US. Assessment of pain is a critical step to providing good pain management. To further both general and chronic pain care management, a manufacturer of pain medications engaged an EHR vendor to implement a clinical decision support (CDS) program aimed at pain care.

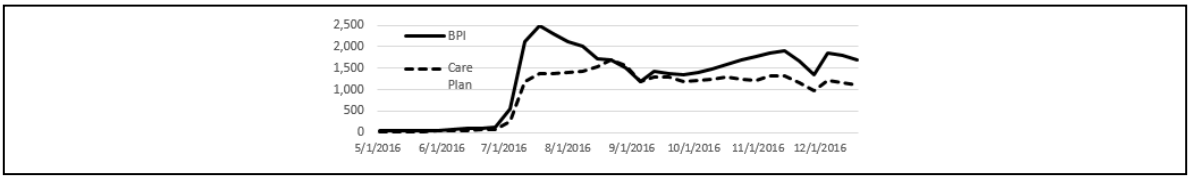
Methods

Based on current evidence-based clinical guidelines three pain care-related CDS alerts were deployed July 5, 2016 on the Practice Fusion EHR platform (PF-EHR)[1]. The PF-EHR is cloud-based with practices in all 50 states facilitating over 5M office visits per month representing 6.7% of US ambulatory care. CDS alerts are displayed on the PF-EHR in real-time when a provider opens a patient chart for editing that meets specified logic. The program includes three CDS alerts: 1) document a pain score in the vital signs flowsheet view for adult patients without chronic pain; 2) complete a brief pain inventory (BPI) assessment for patients with chronic pain; and 3) document a pain care plan for patients with a recent pain score or BPI. The CDS program consisted of matched test and control practices with data evaluated for a six-month period prior to program initiation. Data for the first six months of the program are reported.

Results

Alerts were displayed to 103,717 health care professionals (HCP) during 24,820,820 office visits for 8,355,683 patients at 18,896 practices. Most alerts were for entry of pain scores with the remainder for completing the BPI or for documenting a patient pain care plan. Response to alerts was sustained throughout the 6-month period. (Figure 1).

Figure 1. Pain Care CDS Program Alert Responses by 2-Week Intervals.



Impact of the program is noted by an increase in pain score documentation for an existing EHR data element and by number of BPIs and care plans entered for new EHR data elements. Compared to control practices, test practices entered pain scores, BPIs, and care plans 1.2, 341, and 777 times as often, resulting in 123,662, 38,218, and 29,466 patients with responses attributable to the program, respectively.

Conclusion

Provider acceptance of pain care plan prompts on the PF-EHR platform was positive with completion of prompted actions sustained over six months. CDS provides a method for increased documentation of pain-related care data. Further work will evaluate the impact of this additional data on patient level care and clinical outcomes.

References

1. National Quality Forum. Pain Assessment and Follow-Up – National Quality Strategy Domain: Communication and Care Coordination NQF-0420. Measure Steward: Centers for Medicare and Medicaid Services. Last updated November 17, 2015.
2. National Quality Forum. Pain Assessment and Follow-Up – National Quality Strategy Domain: Communication and Care Coordination NQF-0420. Measure Steward: Centers for Medicare and Medicaid Services. Last updated November 17, 2015.
3. Keller S, Bann CM, Dodd SL, et al. Validity of the brief pain inventory for use in documenting the outcomes of patients with noncancer pain. Clin J Pain 2004; 20(5): 309–317.

Abstract is entered directly into the web site form for a Poster presentation (50-75 words). Abstract:

Assessment of pain is critical to providing good pain management. Based on evidence-based clinical guidelines three pain care clinical decision support alerts were deployed on the Practice Fusion cloud-based EHR platform. The program design consisted of matched test and control practices. Provider acceptance of pain care prompts was positive and sustained over six months with completion of prompted actions including pain scores, brief pain inventories, and care plans higher in test than control practices.